

1 **ABSTRACT**

2 The fast dynamic measurement of connection bandwidth utilizes a single
3 pair of packets to calculate bandwidth between two entities on a network (such as
4 the Internet). This calculation is based upon the packet-pair technique. This
5 bandwidth measurement is extremely quick. On its journey across a network,
6 communication equipment and modems may compress a packet. This
7 compression shrinks the size of the packet; thus, it can distort the bandwidth
8 calculation using such a shrunken packet. To avoid this distortion, the fast
9 dynamic measurement of connection bandwidth employs non-compressible
10 packets. More specifically, it employs highly entropic packets. Therefore, a
11 packet cannot be compressed during its journey. In addition, on its journey across
12 a network, packets may be rerouted, delayed, misrouted, and the like. These
13 momentary delays may result in a momentary bad bandwidth calculation. This
14 problem is ameliorated by using a history list at the client that keeps track of
15 recent measurements. The client returns the median of that list to the server. That
16 median is the specified bandwidth.
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